

EXHIBIT O

SKYWORKS

**LQFP-32**

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- Technical drawing of a BSC (Base Support Component) showing top and side views with dimensions in inches and millimeters.
- Top View Dimensions:**
- Top Left: 0.364 (9.25 mm) and 0.344 (8.74 mm) SQ.
 - Top Right: 0.280 (7.11 mm) and 0.272 (6.91 mm) SQ.
 - Center: 32
 - Left Edge: 1
- Side View Dimensions:**
- Left Edge: 12.0" TYP.
 - Right Edge: 12.0" TYP.
 - Top Right: 0.057 (1.45 mm) and 0.053 (1.35 mm)
 - Top Center: 0.030 (0.76 mm) and 0.018 (0.46 mm)
 - Top Left: 0.063 (1.60 mm) MAX.
 - Top Center: 0.008 (0.20 mm) MAX.
 - Top Right: 0.006 (0.15 mm) and 0.002 (0.05 mm)
 - Bottom Right: 0.018 (0.46 mm) and 0.012 (0.30 mm)
 - Bottom Center: 0.010 (0.25 mm) GAGE PLANE
 - Bottom Left: 0.031 (0.80 mm) BSC
 - Bottom Center: 6.0" ± 4"

The AS115-61 is a high isolation SP4T FET IC non-reflective switch. The switch operates with 0 and -3 V or -5 V over the frequency range of DC–2 GHz. The insertion loss is 0.7 dB and isolation is 50 dB at 0.9 GHz. The switch is ideal for cellular base station switch matrices.

Parameter ¹	Frequency ²	Min.	Typ.	Max.	Unit
Insertion Loss ³	DC–0.5 GHz		0.5	0.7	dB
	DC–1.0 GHz		0.7	0.9	dB
	DC–2.0 GHz		1.1	1.3	dB
Isolation	DC–0.5 GHz	50	58		dB
	DC–1.0 GHz	45	51		dB
	DC–2.0 GHz	35	39		dB
VSWR ⁴	DC–1.0 GHz		1.55:1	1.6:1	
	DC–2.0 GHz		1.65:1	1.8:1	

Parameter ¹	Condition	Frequency	Min.	Typ.	Max.	Unit
Switching Characteristics ⁵	Rise, Fall (10/90% or 90/10% RF) On, Off (50% CTL to 90/10% RF) Video Feedthru			15 30 30		ns ns mV
Input Power for 1 dB Compression	0/-3 V 0/-5 V	0.50–2.0 GHz 0.50–2.0 GHz		+24 +30		dBm dBm
Intermodulation Intercept Point (IP3)	For Two-tone Input Power +13 dBm	0.50–2.0 GHz 0.05 GHz		+40 +29		dBm dBm
Control Voltages	$V_{Low} = 0 \text{ to } -0.2 \text{ V @ } 20 \mu\text{A Max.}$ $V_{High} = -3 \text{ V @ } 100 \mu\text{A to } -5 \text{ V @ } 500 \mu\text{A Max.}$					

1. All measurements made in a 50 Ω system, unless otherwise specified.

2. DC = 300 kHz.

3. Insertion loss changes by 0.003 dB/°C.

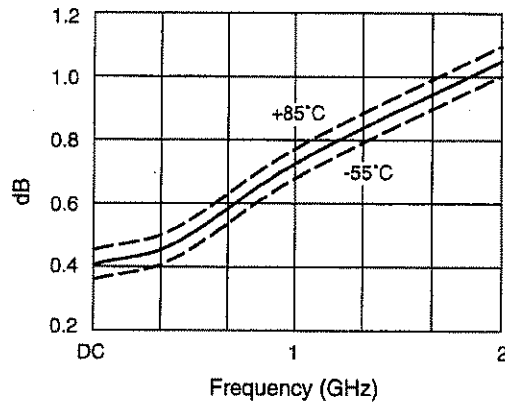
4. Input/output.

5. Video feedthru measured with 1 ns risetime pulse and 500 MHz bandwidth.

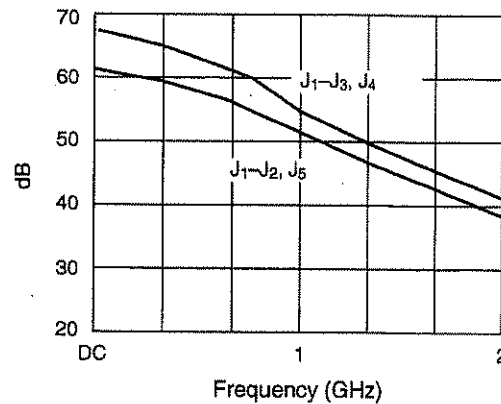
GaAs IC SP4T Non-Reflective Switch DC–2 GHz

AS115-61

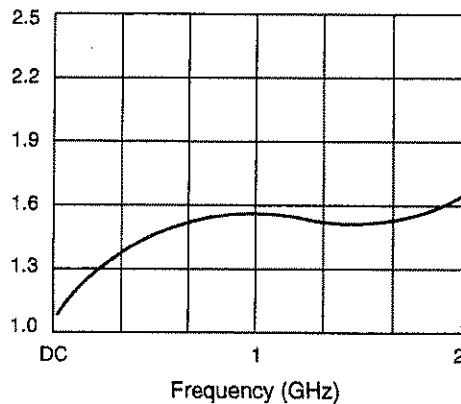
Typical Performance Data (0, -5 V)



Insertion Loss vs. Frequency



Isolation vs. Frequency

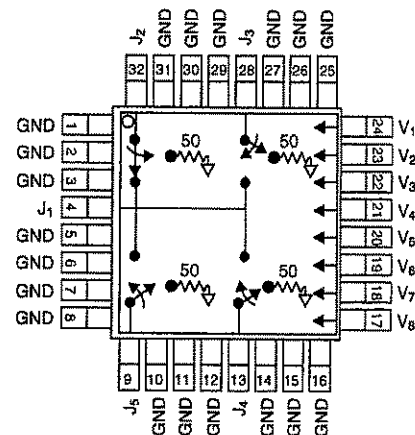


VSWR vs. Frequency

Absolute Maximum Ratings

Characteristic	Value
RF Input Power	2 W > 500 MHz 0/-7 V 0.5 W @ 50 MHz 0/-7 V
Control Voltage	+0.2 V, -10 V
Operating Temperature	-40°C to +85°C
Storage Temperature	-65°C to +150°C
θ_{JC}	25°C/W

Pin Out



Truth Table

Insertion Loss Path J ₁ to:	J ₃		J ₂		J ₅		J ₄	
	V ₁	V ₂	V ₃	V ₄	V ₅	V ₆	V ₇	V ₈
J ₂	0	-5	-5	0	-5	0	-5	0
J ₃	-5	0	0	-5	-5	0	-5	0
J ₄	0	-5	0	-5	-5	0	0	-5
J ₅	0	-5	0	-5	0	-5	-5	0

This datasheet has been download from:

www.datasheetcatalog.com

Datasheets for electronics components.